

CRITICAL ITEMS LIST

REFERENCE DESIGNATOR: _____
 NAME/QUANTITY: Pin, Quick Release/1
 DRAWING REFERENCE: 10176-20423

PROJECT: UARS
 LRU NAME/QUANTITY: Latch Assembly
 LRU PART NUMBER: 10176-20406-01

SUBSYSTEM: _____
 EFFECTIVITY: ALL ORBITERS

FAILURE MODE NO. UARS-FM- 004		CRITICALITY 2/1R	FAILURE EFFECT	RETENTION RATIONALE
FUNCTION Holds the work station stanchion mounted on the UASE cradle in position.			END ITEM WSS to be restrained by latch assembly. MISSION Loss of work station stanchion function. CREW/VEHICLE Possible damage to crew and/or vehicle. INTERFACE Possible loss of work station stanchion assembly.	A. Design Sufficient interface tolerances are used to ensure proper operation and are based on military standards/specifications and required thermal tolerances. Shank and Spindle are made of 17-4PH or 15-7MO stainless and the latch whole it interfaces with is made of aluminum. B. Test/Analysis Assembly will be functionally cycled to ensure proper operation. Latch Assembly has been vibration tested to S/AD levels at Goddard Space Flight Center. C. Inspection All piece parts are inspected for conformance to the applicable military specifications before and after any special process. Special purchasing screening procedures have been established to avoid purchasing pins with the failure point noted in Section D.
FAILURE MODE AND CAUSE Self activates/inadvertant operation (comes out) Cause: Vibration				
REDUNDANCY SCREENS A - Pass B - N/A C - Pass	REMAINING PATHS A strap will hold the pin in proper position			
MISSION PHASE	TIME TO EFFECT	TIME TO CORRECT		
launch/ landing	Seconds	N/A		

PREPARED BY: R. Brump

REVISION:

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REVISION DATE:

DATE

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SUBSYSTEM: _____
 EFFECTIVITY: ALL ORBITERS

FAILURE MODE NO	CRITICALITY	FAILURE EFFECT	RETENTION RATIONALE
<p>UARS-FM-004</p> <p>FUNCTION</p> <p>Holds the work station stanchion mounted on the BAST cradle in position.</p> <p>FAILURE MODE AND CAUSE</p> <p>Self activates/inadvertant operation (comes out)</p> <p>Cause:</p> <p>Vibration</p> <p>REUNDANCY SCREENS</p> <p>A - Pass B - N/A C - Pass</p> <p>MISSION PHASE</p> <p>Launch/ Landing</p>	<p>2/1R</p> <p>END ITEM</p> <p>WSS to be restrained by latch assembly.</p> <p>MISSION</p> <p>Loss of work station stanchion function.</p> <p>CREW/VEHICLE</p> <p>Possible damage to crew and/or vehicle.</p> <p>INTERFACE</p> <p>Possible loss of work station stanchion assembly.</p>	<p>C. Inspection (cont.)</p> <p>PDA (Predelivery Acceptance) will be performed on all end items. Pins are verified functionally at PDA by inserting them into end item and checking that they lock and unlock.</p> <p>All piece parts are cleaned and processed to IEC Cleaning, Packaging, Handling, Shipping, and Storage Procedures for Space Shuttle Crew Equipment; Document #18107-70009.</p> <p>D. Failure History</p> <p>A quick release pin failure has been observed during vibration testing for CETA. A swaged pin that held the l-handle in place came loose and the pin failed.</p> <p>E. Ground Turnaround</p> <p>PDA-PDA will be performed on all end items.</p> <p>F. Operational Use</p>	
	<p>REMAINING PATHS</p> <p>A strap will hold the pin in proper position</p>		
	<p>TIME TO EFFECT</p> <p>Seconds</p>	<p>TIME TO CORRECT</p> <p>N/A</p>	

PREPARED BY: R. Brown

REVISION: _____

IMPLEMENTING DATE: _____

DATE: _____

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 ATTACHMENT
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CRITICAL ITEMS LIST

REFERENCE DESIGNATOR: _____
 NAME/QUANTITY: Pin, Quick Release/1
 DRAWING REFERENCE: 10176-2042

PROJECT: UARS
 ARI NAME/QUANTITY: Latch Assembly
 LRU PART NUMBER: 10176-20406-01

SUBSYSTEM _____
 EFFECTIVITY: ALL ORBITERS

FAILURE MODE NO. UARS-FM-004	CRITICALITY 2/1R	FAILURE EFFECT	RETENTION RATIONALE
FUNCTION Holds the work station stanchion mounted on the UARS cradle in position.		END ITEM WSS to be restrained by latch assembly. MISSION Loss of work station stanchion function. CREW/VEHICLE Possible damage to crew and/or vehicle. INTERFACE Possible loss of work station stanchion assembly.	1. Operational Use (cont.) 1. Operational Effect of Failure None, unless strap fails. 2. Crew Action None. 3. Crew Training Crew is trained to reinstall strap for landing. 4. Mission Constraints Strap must be reinstalled along with pin after use. 5. In-Flight Checkout Crew will visually verify that strap and pin are in place.
FAILURE MODE AND CAUSE Self activates/inadvertant operation (comes out) Cause: Vibration			
REUNDANCY SCREENS A - Pass B - N/A C - Pass	REMAINING PATHS A strap will hold the pin in proper position		
MISSION PHASE	TIME TO EFFECT		
Launch/ Landing	Seconds	N/A	

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 ATTACHMENT -
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PREPARED BY: R. Beard

REVISION: _____

ISSUING DATE: _____

DATE: _____